

**B.J.S. SOFTWARE SYSTEMS**

P.O. BOX 191.  
ROSANNA, VIC. 3084  
PHONE (03) 434-2541

m  
i  
c  
r  
o  
  
d  
a  
t  
a

## **CUSTOMER REGISTRATION FORM**

Fill out and return the following registration form to:

**B.J.S. SOFTWARE SYSTEMS**  
P.O. Box 191,  
ROSANNA, 3084,  
VICTORIA., AUST.

Failure to comply with the above will result in no Software service.

Once the registration form is received the customer will be sent notices of any available updates, additions or corrections as they become available.

Product Name.....

Product Serial Number..... Purchase Date .....

Customer Name.....

Address.....

State..... Postcode.....

Telephone number.....

Customers Signature ..... Date .....

oooooooooooooooooooo

Software Supplier.....

.....

.....

.....

**CUSTOMERS COMMENTS :**

-----

-----

oooooooooooooooooooo

## TABLE OF CONTENTS

	Page No.
1.0 INTRODUCTION	3
1.1 Description	3
1.2 System Startup	3
2.0 CREATE NEW FILE	4
3.0 USE EXISTING FILE	5
3.1 Edit Records	6
3.2 Add Records	7
3.3 Delete Records	8
3.4 Sort Records	9
3.5 Compress Records	10
3.6 Split Records	11
3.7 Transfer Records	14
3.8 File Report	15
3.9 Mailing Labels	17
4.0 SYSTEM UTILITY	18
5.0 CLOSE DOWN	19

**1.0****INTRODUCTION**

In this manual the following terms are used to describe the structure of MICRO DATA.

Field - A single data item which may be a name or number.

Record - A collection of fields.

File - A collection of records.

< > - Entry via the keyboard.

**1.1****Description**

MICRO DATA is a general use data base written to utilise the capacity of the floppy disks and the file handling capabilities of the HITACHI MB-6890 computer.

MICRO DATA has been designed to handle records with a maximum field length of 500 bytes (characters). These records can be divided into 16 separate user defined fields. Refer section 2.0

Files created by the user can be Updated, Deleted, Edited together with the facility to report either on the whole record or selected fields from the record. Other facilities include the ability to split main files into smaller files for the production of mailing lists etc.

**1.2****SYSTEM STARTUP****Minimum hardware requirements.**

- 1 - HITACHI MB-6890 Computer (CPU)
- 1 - Monitor (Colour or Green screen)
- 1 - HITACHI MP-3550, 320K floppy disk drives
- 1 - 16K RAM expansion card
- 1 - Printer (EPSON or compatable)

**Procedure.**

1. Ensure "MODE" switch is on setting "1".
2. Switch on disk drive unit.
3. Insert SYSTEM disk into drive (0) and data disk into drive (1).
4. Switch on MONITOR and CPU.

Upon initialization you are required to enter the current date.

Enter the date in the form of day/month/year 06/08/83.

IF THIS IS YOUR FIRST TIME WITH MICRO DATA IT IS IMPORTANT THAT YOU SET THE PRINTER CONFIGURATION. TO DO THIS ENTER THE SYSTEM UTILITIES VIA THE MAIN MENU AND RUN OPTION "LPTSET". ENSURE THAT THE WRITE-PROTECT TAB IS REMOVED FROM THE SYSTEM DISK IN DRIVE (0).

## 2.0

### CREATE NEW FILE

To create a new file for MICRO DATA, the user is first required to set the field names (headings) under which any future data is to be stored followed by the field length (50 maximum) and type of data to be stored by the field.

- <A> Alphanumeric field - Data of any type may be entered into this field.
- <N> Numeric field - Only numeric data may be entered into this field.

The maximum number of fields for each record is 16. A field heading may contain a maximum of 25 characters (numeric or alphanumeric).

When the required number of field names has been selected use the <^> key to exit and save file to disk or use the <\*> key to restart.

The total field length for each record cannot exceed 500 bytes (characters).

Prior to specifying the field lengths, the user must be certain of the maximum field length ever required, as this parameter cannot be modified once set. In order to keep reports looking neat it is wise to make the field length for a particular field at least as wide as the number of characters in the header for that field.

Now that you have selected your field names, and field lengths you must choose a file name under which all records are to be stored. Before selecting the new file name note the following restriction:

**THE FILE NAME IS TO CONSIST OF A MINIMUM OF 2 CHARACTERS AND A MAXIMUM OF 7 CHARACTERS. THE FIRST TWO CHARACTERS OF EACH FILE NAME ON THE SAME DATA DISK MUST BE UNIQUE.**

(The first two characters of each file name created are utilised by the sort routines.)

If there is any doubt regarding the names of existing files use the <^>+<CR> key, (when prompted for a file name) to display the data files, then select your new file name.

## 3.0

## USE EXISTING FILE

When this module of MICRO DATA is accessed you will need to enter the file name that you wish to access, unless this file has just been created. Again <^>+<CR> will display all data files on the data disk in Drive (1). Once the file is loaded you will proceed to the data entry menu.

micro data 2.0

DATA ENTRY

01/01/99

File in memory COLUMN

- 1 Edit Records
- 2 Add Records
- 3 Delete Records
- 4 Sort Records
- 5 Compress Records
- 6 Split Records
- 7 Transfer Records
- 8 File Report
- 9 Mailing labels

When you have completed all the required work with a file two options are available:

1. Use <PF1> to select another existing file.
2. Use <PF2> to return to the main menu.

The <PF1> key will only respond when the DATA ENTRY MENU is displayed but then <PF2> key can be used any time with caution, (DO NOT USE KEYS WHEN DISK IS ACCESSED AS FILE CORRUPTION MAY OCCURE). In some instances the <PF2> key will need to be accompanied by a <CR>.

### 3.1

#### Edit Records

Option 1 allows the user to edit a sequence of records or a specific record. Refer to section 3.6.1 to specify editing parameters. Records can be edited sequentially until the last record is accessed or until the <^>+<CR> are keyed. A return to the menu is made with no modifications to the last record displayed.

To edit records the following steps should be observed.

1. <CR> retains existing field data with no modifications.
2. To modify retype entire entry followed by <CR>.
3. <.>+<CR> deletes the field contents.

## 3.2

**Add Records**

When option 2 is selected the next available record number is displayed together with the field names ready for data entry.

MICRO DATA has been designed to hold up to 2000 individual records in any one file, although this is dependent on the available free disk space and the field length of the record. If you are using field lengths of 250 bytes long, a maximum number of 1100 records can be stored on a newly formatted disk.

Prior to the addition of any new records, the system will display the number of free records that can be added to the file in use. If the number of disk bytes free is less than 3000, an option is given to start a new data disk. The file parameters in use will be transferred to the new disk, and then data entry can continue.

As the field lengths have been specified, any data entered will not be able to exceed this limit. The limit for each field is displayed by a number of dots <.> after the field name.

If an error in data entry is made and detected prior to pressing the <CR> key, use the <DEL> key to move the cursor back to the desired location and correct the error. Additional errors can be corrected before storing the record to disk, or at a later stage via the EDIT procedure. When making corrections the whole field contents need to be retyped.

If you have no data for any field, proceed to the next field by pressing the <CR> key. To save repetitious data entry the <\*> key will insert the current date in to the field.

When you have entered all your data, return to the data entry menu by the <^>+<CR> keys for the first field.

Refer to section 3.4.1

### 3.3

#### **Delete Records**

Prior to deleting any records a selection must be made via section 3.6.1 by specifying the record parameters. When the record is selected its contents are displayed and you are given the option to delete. Once a record has been deleted it cannot be reconstituted. The data needs to be recreated via a new record.

Since a deleted record uses the same amount of disk space as an active record and retains its record number, it is wise to compress the file after a number of deletions. Refer to section 3.5

### 3.4

#### Sort Records

MICRO DATA allows data files to be sorted by a maximum of 2 KEYS. eg. The first sort key may be the "NAME" field, and the second key may be the "SUBURB" field. Records will be initially sorted by names and if any names coincide they will be sorted by the "SUBURB" field.

After the sort key is selected (1 or 2) you must select a field which shall be used to sort the file. The records will be sorted in ascending alphanumeric order.

The actual file is not sorted, but a matrix is formed which contains the order that the file shall be printed in.

Data to be sorted can be selected by multiple attributes. Refer to section 3.6.1.

#### 3.4.1

When modifying any file either by Editing or Adding records, the file should be re-sorted. Failure to follow this procedure will result in the reports being out of order as the sort matrix has not been updated.

### 3.5

#### Compress Records

Records which are deleted from files still occupy the same disk space as active records. The first byte of the record has a distinct control character which restricts access to it. A deleted record will still retain its record number.

Compressing a file will remove the record from the disk, which frees disk space for new records.

If the records have been sorted prior to deleting and this option is used you should consider re-sorting the file.

#### Warning

Compressing a file will also renumber all records after the deletion.

## 3.6

## Split Records

Option 5 of MICRO DATA would have to be considered to be its most powerful feature. This feature allows the user to split an existing file into any desired configuration. The splitting of a file is carried out using one data disk in drive (1).

The source file name is displayed on the screen and a destination file name needs to be selected. If you are unsure of the existing file names press <^>+<CR> keys to display all data files.

To split the existing file, select the record headings (fields) in the order required. After the headings have been selected enter <^>+<CR>. The system then proceeds to the data selection feature. Refer to section 3.6.1.

When the file headings (fields) and data type have been selected a check is made to determine if there is sufficient disk space for the new file. If this is not the case proceed to section 3.7 and transfer your source file to a new data disk, then return to section 3.6.

## 3.6.1

Data is selected by multiple attributes (AND, OR, NOT, END). The following is displayed:

Field #

String

AND, OR, NOT, END (A/O/N/E)

1. Field # - select a field number from those displayed.
2. String - selection may consist of a single character or a number of characters.
  - a) BAS - selects any record that commences with the specified characters <BAS>.
  - b) D - selects any record that commences with the specified character <D>.
  - c) \*COPY - selects any record within the specified field with the word <COPY> anywhere within it.

To use this facility the string **MUST** be prefixed with the <\*> character.

## 3. AND, OR, NOT, END (A/O/N/E) selection facility.

When using multiple attributes for selection of data for processing one of the above letters must be selected, to describe how the data is to be combined with the next requirement.

When using the NOT <N> function, it must only be used as a connector between two other selected criteria.

If you decide to use the multiple attributes function the selection **MUST** be terminated with the letter <E>.

The following example has been chosen to simplify the explanation. Data shown below shall be fields (0-4) of a number of records.

0	1	2	3	4
REC#	NAME	DESCRIPTION	TYPE	SYSTEM
1	FILELIST	Directory to printer	BAS	32/40
2	CALC	Calculator	BIN	40
3	ZED	Adventure Game	BAS	32/40
4	FSORT	Directory Sort	BIN	32/40

a) This procedure is used when you have accidentally entered multiple attributes selection or when you wish to examine the whole file.

```
Field # <^>+<CR>
String
AND, OR, NOT, END (A/O/N/E)
```

b) Select all names commencing with the letter <F>.

```
Field # <1>+<CR>
String <F>+<CR>
AND, OR, NOT, END (A/O/N/E) <E>+<CR>
```

Note that the letter <E> is used to terminate selection thereby informing the system that the search is only to be performed in field 1 for the string <F> (a name that commences with the letter <F>).

c) Select all names commencing with the letter <F> but NOT if the type is <BAS>. The conjunction AND <A> always acts on fields within the same record.

```
Field # <1>+<CR>
String <F>+<CR>
AND, OR, NOT, END (A/O/N/E) <A>+<CR>
```

```
Field # <3>+<CR>
String <BAS>+<CR>
AND, OR, NOT, END (A/O/N/E) <N>+<CR>
```

```
Field # <CR>
String <CR>
AND, OR, NOT, END (A/O/N/E) <E>+<CR>
```

Note again termination with the letter <E>.

d) Select all names commencing with the letter <Z> and any other name that contains a letter <L>.

```
Field # <1>+<CR>
String <Z>+<CR>
AND, OR, NOT, END (A/O/N/E) <O>+<CR>
```

```
Field # <1>+<CR>
String <*L>+<CR>
AND, OR, NOT, END (A/O/N/E) <E>+<CR>
```

The multiple attributes selection can be used to set up to 16 different combinations.

### 3.7

#### Transfer Records

This option caters for the transfer of records between two data disks. Drive (1) is the source drive and drive (0) the destination drive.

The data to be transferred can be selected by the use of multiple attributes. Refer to section 3.6.1.

## 3.8

**File Report**

Reports from MICRO DATA can be generated on both 80 and 136 column printers. The format used for printing is determined by the size of printer being used.

For 80 column printers all reports are printed in condensed mode. Reports greater than 120 bytes (field length) cannot be generated (you must select fewer fields to report). If a 136 column printer is used, reports that generate a field length less than 128 bytes long are printed in the printers normal mode and reports that are greater than 128 bytes are printed in condensed mode. For 136 column printers field length greater than 230 bytes cannot be generated.

When using the reporting facility two types of reports are available:

1. Report in listed format.
2. Report in tabular format.

The above restriction only applies to printers if the tabular report format is selected.

Apart from having the two report formats, reports can still be generated to the screen, where they are displayed in listed format only.

Reports can be generated from a sorted or unsorted file. Refer section 3.4. If using a sorted file the sort KEY and the field that the sort was conducted on are required. If the file has been sorted but you decide not to use the sort matrix, when prompted for the sort KEY enter <^>+<CR>, this procedure is also necessary if there is no sort matrix ie. unsorted file.

Once you have selected the sort parameters you need to select the field headings that are to make up the report, in the required printing order. Select each field heading individually followed by a <CR>. Upon completion of order entry, enter the <^>+<CR> keys. If you decide that a report on all fields is required for the first field heading enter <^>+<CR>.

Data can be selected using the multiple attributes feature. Refer to section 3.6.1.

As numeric data may be contained within a field, this data can be added to give totals for each field by selecting column totals. Column totals are only available for fields with numeric data. Alphanumeric and numeric mixture is disregarded.

COLUMN TOTALS ARE ONLY AVAILABLE IF REPORTS ARE GENERATED IN TABULAR FORMAT.

To save repetitious work MICRO DATA allows you to output any selected data to a file that can be used by **HiWriter's** Mail Merge facility. To use this feature simply select output to a FILE, where a prompt will be displayed to select the output file name. A check is made to determine if the filename already resides on the disk directory, if so the file can be overwritten.

When the filename selection is complete follow the same procedure as for data output to screen or printer.

## 3.9

**Mailing Labels**

MICRO DATA mailing labels can be printed on two standard size labels available for commercial use.

1. 25mm (12 labels per page length),
2. 35mm ( 8 labels per page length),

In single, double or triple width per page. The single and double page widths are available for use with 80 column printers while the triple page width can only be used on 136 column printers (three columns per page width).

To use the mailing labels facility a special file format is required. The label facility uses the first 6 fields of a record.

Data for printing can be selected by the multiple attributes facility. Refer to section 3.6.1.

The following formats are used for printing labels:

1. 25mm (12 labels per page length)

John Citizen	FIELD 1
B.J.S. SOFTWARE SYSTEMS	FIELD 2
P.O. Box 191	FIELD 3
ROSANNA, VIC, 3084	FIELD 4, FIELD 5, FIELD 6

2. 35mm (8 labels per page length)

John Citizen	FIELD 1
B.J.S. SOFTWARE SYSTEMS	FIELD 2
P.O. Box 191	FIELD 3
ROSANNA	FIELD 4
VIC, 3084	FIELD 5, FIELD 6

Files for mailing lists can be set up from existing files using the split feature (remember to get the order correct!!) or they can be set up from scratch using the create feature.

Whether creating new files or using the split feature you are advised NOT to have fields greater than 30 characters as wrapping around will occur.

Consideration should be given to the last three fields as they may be printed on a single line depending on the print format chosen. See item 1 of printing formats.

## 4.0

## SYSTEM UTILITY

The UTILITY module is a comprehensive disk analysis and control system providing the user with a simple mechanism for the management of diskettes and manipulation of files.

The UTILITY is designed to manipulate diskettes in DRIVE (1) only.

The UTILITY control system consists of the following features:

1. QUIT - return to initial menu.
2. DISKSCAN - scans diskette and displays all files.
3. RENAME - file on diskette.
4. DELETE - file on diskette.
5. FORMAT - new diskette.
6. DISKDUMP - look at any part of diskette and dumps its contents to screen or printer.
7. BACKUP - a diskette with the advantage of formatting the new diskette prior to copying.
8. DISKCOPY - a diskette allowing for selection of Volume or System only copy.
9. FILECOPY - transfer of files from one diskette to another diskette.
10. DISKTEST - test new disk for bad sectors.
11. LPTFILES - dump the file index to printer.
12. LABEL - set disk labels on diskettes.
13. CONFIG - configure new diskette with display of standard and existing configuration.
14. LPTSET - Set printer configuration.

Data diskettes are used in DRIVE (1). Prior to the diskette being used it must be formatted and initialised with a Microsoft Disk Basic directory. This may be achieved by the FORMAT command. At this stage and for future reference it would be advantageous to LABEL the data diskette with the LABEL command, and some form of external identification with the aid of a sticky label.

**5.0**

**CLOSE DOWN**

The close down facility incorporated into MICRO DATA allows the user to make a backup data disk if so desired.

It is highly recommended that this facility be used for terminating use of MICRO DATA rather than using the <BREAK> key.

oooooooooooooo